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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,795	09/03/2003	Richard J. Sacks	P1425	6963

24739 7590 05/20/2005

CENTRAL COAST PATENT AGENCY  
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EXAMINER

DESAI, ANISH P

ART UNIT PAPER NUMBER

1771

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/654,795

Applicant(s)

SACKS, RICHARD J.

Examiner

Anish Desai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: WO Patent 95/34609.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Reference signs "301" on Page 9, line 15 and "401" on Page 10, line 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities: Description of the Preferred Embodiments (Page 6, line 14), change "know" to "known".

Appropriate correction is required.

3. The use of the trademark Velcro has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.:

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 mentions needle-pointing. It is unclear as to what applicant means by needle-pointing. For the purpose of prior art search; examiner is interpreting any conventional way of applying two layers using a needle as needle-pointing. The conventional way can include sewing two layers using a needle.
5. Claim 17 contains the trademark/trade name Velcro. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe "closure" and, accordingly, the identification/description is indefinite.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Zuckerman et al. (WO Patent 95/34609).

Regarding claims 1,2 and 6, Zuckerman et al. disclose energy absorbing fabric coating (See Abstract). In one embodiment of the invention, a fabric is coated with binder containing microencapsulated phase change material (PCM) to form coated fabric (see Abstract). Fabric coated with binder containing microencapsulated phase change material (PMC) is considered as composite structure. Zuckerman et al. give examples of fabric as being used in stockings, undergarments etc. (Page 4, lines 33-35). Thus fabric is suitable to use in contact with animal's flesh. Fabric can be used as padding material. Additionally, Zuckerman et al. teach that in applying binder containing microsphere of PCM directly to a fabric, a significant amount of binder must be applied if high content of microencapsulated PMC is desired. For some commercial uses, however, a thick, exposed coating layer may be undesirable for the finished product. This problem can be overcome in certain applications by insertion or lamination of the exposed coating between external sheets, substrates or fabrics of the finished product. Such construction prevents the coating from contact with the end-user or exposure to

view. (Page 4, lines 4-17). Note that felt material is type of fabric and fabric can be woven or non-woven.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1,2,4, 8 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricken (US Patent 4,974,397) in view of Bryant et al. (US Patent 5,366,801).

Ricken teaches anti-stress saddle pad formed of multiple layers of material (see Abstract). Note the saddle pad made of multiple layers is considered as a composite structure. The saddle pad contains layers from top to bottom as follows: (a) a sheet of felt, (b) a sheet of visco-elastic polymer, (c) a sheet of open-celled polyurethane foam, and (d) a sheet of felt. A sheet of vinyl covers the top surface of the saddle pad (Column 2, lines 59-66). According to Ricken, the visco-elastic polymer and the open – celled polyurethane foam absorb shocks and vibrations (Column 1, lines 51-59). A felt material can function as padding. Examiner is interpreting the **top** and **bottom** layer of felt as padding material.

Ricken is silent with respect to teaching that a phase change material is joined to one of the layers of padding material, padding material is one of the other or woven or

non-woven material with PCM adhered to the individual fibers of the padding material, and that a layer comprising non-woven PCM coated sheet material is applied to the felt on the side away from the animal's flesh. Additionally, Ricken is silent with respect to teaching that the shock absorbing material has at least 7 lb weight.

Bryant et al. disclose a coating that is applied to a fabric in order to enhance the thermal characteristic of the fabric. The coating includes integral and leak-resistant microcapsules filled with phase change material (See Abstract). The fabric can be woven knitted or non-woven (Column 4, lines 24-27).

Regarding, claims 1 and 2, the inventions of Ricken and Bryant et al. are disclosed above.

A skilled artisan would have found it obvious to use phase change material disclosed in the invention of Bryant et al. and used it in the felt disclosed in the invention of Ricken. One would be motivated to do this in order to provide a saddle pad with enhanced thermal properties so that it can effectively maintain the comfortable skin temperature of horse.

Regarding claim 4, the inventions of Ricken and Bryant et al. are disclosed above.

A skilled artisan would have found it obvious to use a non-woven fabric coated with phase change material disclosed in the invention of Bryant et al. and applied to the side of the **bottom** felt layer, which is away from the horse disclosed in the invention of Ricken. One would be motivated to do this in order to effectively maintain stable body temperature (i.e. skin temperature) of horse. The examiner is treating the **bottom** felt

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layer disclosed in the invention of Ricken as the first layer of felt and non-woven fabric coated with phase change material disclosed in the invention of Bryant et al. as a second layer as claimed in the present invention.

Regarding claim 8, the inventions of Ricken and Bryant et al. are disclosed above.

The invention of Ricken does not explicitly teach that the bottom felt layer is made of sheep's wool. According to the Merriam-Webster Online Dictionary, felt is defined as "cloth made of wool and fur often mixed with natural or synthetic fibers through the action of heat, moisture, chemicals, and pressure" (<http://www.m-w.com/>). Thus the **bottom** felt layer disclosed in the invention of Ricken could be made of wool.

A skilled artisan would have found it obvious to use a non-woven fabric coated with phase change material disclosed in the invention of Bryant et al. and applied to the side of the **bottom** felt layer, which is away from the horse as disclosed in the invention of Ricken. One would be motivated to do this in order to effectively keep horse in the comfortable temperature.

Regarding claims 10 and 11, the inventions of Ricken and Bryant et al. are disclosed above.

Although, the invention of Ricken does not explicitly teach that the vinyl sheet functions as non-skid and durable surface. It is shown in the art that materials such as vinyl, nylon or wool can be used to make non-skid and durable surfaces (see in Green, US Patent 5,575,139, Column 3, lines 1-8). Thus the vinyl sheet disclosed in the invention functions as non-skid and durable surface. The durable surface is considered



to be wear-resistant. Note that the vinyl sheet disclosed in the invention of Ricken forms the top cover portion of the saddle pad, which is considered to be area prone to wear.

Regarding claims 12 and 13, a sheet of visco elastic material disclosed in the invention of Ricken is shock-absorbing material.

Regarding claim 14, Ricken in view of Bryant et al. disclose the claimed invention except for the weight of the shock absorbing material. The weight of the shock absorbing material affects the strength & durability of the material. For example, greater the weight of shock absorbing material, the strength and durability also increases. It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the weight of the shock absorbing material to be 7 lb, since it has been held that discovering an optimum value of a result effective variable involves routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to choose the weight of the weight absorbing material to be 7 lb in order to make the stronger composite structure.

8. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ricken (US Patent 4,974,397) in view of Bryant et al. (US Patent 5,366,801) and further in view of Pushaw (US Patent 5,677,048).

The inventions of Ricken and Bryant et al. are disclosed previously. Both are silent with respect to teaching that phase change material is coated on individual cells of the foam material.

Pushaw teaches a coating composition for skived foam substrate. The coating composition contains phase change material (see Abstract). Pushaw does not explicitly teach that the phase change material is coated to individual cells of the foam material. However, Pushaw does teach that the increased loading of microencapsulated phase change material and increased penetration into the open cell structure of the skived foam to greater than 50% of the thickness of the skived foam was desired for greater thermal control (e.g. optimal thermal conductivity). Thus, Pushaw's invention does provide motivation to coat the individual cell of the foam disclosed in the invention of Ricken. Additionally, Pushaw teaches that applying a polymer binder in which micro spheres of phase change materials are dispersed, to a skived foam substrate attached to a fabric sheet, results in a finished product in which structural integrity of the skived foam substrate is maintained. In addition, the finished product has an unexpectedly high level of loading of the encapsulated phase change materials, thereby providing exceptional control of thermal conductivity across the coated, skived foam (Column 3, lines 7-15).

A skilled artisan would have found it obvious to use the phase change material disclosed in the invention of Pushaw and used it to coat the individual cells of the foam disclosed in the invention of Ricken. One would be motivated to do this in order to maintain the structural integrity of the foam and exceptional control of thermal conductivity. Note that the foam disclosed in the invention of Ricken can function as padding material.

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9. Claims 5&7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricken (US Patent 4,974,397) in view of Bryant et al. (US Patent 5,366,801) and further in view of Pause (US Patent 6,217,993).

The inventions of Ricken and Bryant et al. are disclosed previously. Both are silent with respect to teaching needle-pointing and the phase change material having phase change temperature of about 95°F.

Pause teaches about thermal insulating fabric system containing energy absorbing, temperature stabilizing phase change materials suitable for clothing construction (Column 1, lines 24-28). The clothing system in Pause's invention includes at least three layers. The phase change material has an average melting temperature (i.e. phase change temperature) slightly higher than skin temperature, i.e. in the range of 92°F to 94°F (Column 3, lines 58-62) or an acceptable range of 90°F to 98°F. Pause teaches that these layers are bonded together by stitching, lamination or other method of connection (Column 3, lines 48-50). Although, Pause does not explicitly teach needle-pointing, Pause does provide motivation to use a needle and sew layers as the other method of connection.

Regarding claim 5, a skilled artisan would have found it obvious to use a needle and sew first and second layers of felt as claimed in the present invention. One would be motivated to do this in order to combine both layers so that they do not separate from each other and hence maintain the structural integrity of the composite structure (i.e. saddle pad) disclosed in the invention of Ricken.

Regarding claim 7, a skilled artisan would have found it obvious to use phase change material disclosed in the invention of Pause with phase change temperature of 95°F and used it to coat the top layer of felt (i.e. padding) in the invention of Ricken. One would be motivated to do this in order to provide a saddle pad that can effectively keep horse and the rider comfortable.

10. Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ricken (US Patent 4,974,397) in view of Bryant et al. (US Patent 5,366,801) and further in view of Schortmann (US Patent 4,499,139).

The inventions of Ricken and Bryant et al. are disclosed previously. Both are silent with respect to teaching an additional layer of anti-bacterial batting material.

Schortmann teaches a micro-sized fabric. The fabric is micro-sized by application of a latex froth to fabric to create micro-size pores, which are necessary to establish a bacterial barrier in a fabric while preserving air permeability (Column 2, lines 41-47). The application of such fabric is in operating room surgical gowns. Schortmann teaches that the micro-sized pores allow greater air permeability and thus allow body heat to escape, which gets generated while performing surgery or other task. Additionally, these micropores provide a barrier on the outside surface of the fabric to liquid borne bacteria (Column 5, lines 22-34).

A skilled artisan would have found it obvious to use micro-sized fabric disclosed in the invention of Schortmann and used it as an anti-bacterial layer in the invention of Ricken. One would be motivated to do this in order to provide a saddle pad disclosed in the invention of Ricken with improved anti-bacterial resistance.

11. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricken (US Patent 4,974,397) in view of Bryant et al. (US Patent 5,366,801) and further in view of Woods (US Patent 5,802,823).

The invention of Ricken and Bryant et al. are disclosed above. Both are silent with respect to teaching a pocket.

The invention of woods teaches about a shock absorbing panel assembly for saddles. The panel assembly comprises shock absorbing panels and pockets for fitting them in (Column 1 lines 66, Column 2, lines 1-5). The pocket has an opening, which can be releasably closed by means of hook and loop type material (Column 3, lines 19-22). The opening is considered as closure as claimed in the present invention.

Regarding claims 15-17, A skilled artisan would have found it obvious to use a pocket with an opening which can be closed by means of hook and loop type material disclosed in the invention of Woods and used it to enclosed shock absorbing visco-elastic polymer disclosed in the invention of Ricken. One would be motivated to do this in order to effectively secure the shock absorbing material.

12. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ricken (US Patent 4,974,397) in view of Bryant et al. (US Patent 5,366,801) and further in view of Widdemer (US Patent Application Publication 2002/0035755).

The inventions of Ricken and Bryant et al. are disclosed above. Both are silent with respect to teaching that at least one layer comprises fiber based on rare earth elements.

Widdemer teaches leather made beneficially interactive with the human body through the insertion of rare earth elements into its fiber matrix for use in garments, footwear, gloves or upholstery. These rare earth elements in sufficient amount will reflect and amplify infrared radiation from environment and human body such that it causes beneficial effects (e.g. increase in blood flow) (see Abstract). In addition a layer of phase change material can be added to the surface of the leather to provide a temperature stabilizing material (see Abstract).

A skilled artisan would have found it obvious to use rare earth elements disclosed in the invention of Widdemer and used it in one of the layer (e.g. felt) disclosed in the invention of Ricken. One would be motivated to do this in order to provide increased blood flow, simulating cellular activities and general well being.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Desai whose telephone number is 571-272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

apd

  
ELIZABETH M. COLE  
PRIMARY EXAMINER